



MINISTER FOR THE ENVIRONMENT
EMPLOYMENT AND TRAINING

Ass # 1061

Bull # 863

State # 464

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

PROPOSAL: CLEAN-UP OF CONTAMINATED SITE
McCABE STREET, MOSMAN PARK (817/993/1061)

CURRENT PROPONENT: LANDCORP AND OCTENNIAL HOLDINGS PTY LTD

CONDITIONS SET ON: 1 FEBRUARY 1994

CONDITIONS AMENDED ON: 15 MARCH 1996

The implementation of this proposal is now subject to the following conditions which replace all previous conditions:

1 Proponent Commitments

The proponent has made a number of environmental management commitments in order to protect the environment.

- 1-1 In implementing the proposal (including the documented modifications of January 1996 and January 1997), the proponent shall fulfil the relevant environmental management commitments made in the Consultative Environmental Review (July 1993) and published in Environmental Protection Authority Bulletin 699; in documentation on the increase in size of the containment cell in January 1996 (reported on in Environmental Protection Authority Bulletin 807); in documentation on the management of additional wastes in January 1997; those made in response to issues raised by specialist government agencies and reported on in April 1997, and subsequently during the environmental assessment process conducted by the Environmental Protection Authority; provided that the commitments are not inconsistent with the conditions or procedures contained in this statement.

In the event of any inconsistency, the conditions and procedures shall prevail to the extent of the inconsistency.

The attached environmental management commitments (December 1997) form the basis for consideration by the Chief Executive Officer of the Department of Environmental Protection for auditing of this proposal in conjunction with the conditions and procedures contained in this statement.

Published on

19 DEC 1997

2 Implementation

Changes to the proposal which are not substantial may be carried out with the approval of the Minister for the Environment.

- 2-1 Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority initially with the proposal and subsequently as part of further consideration under Section 46 of the Environmental Protection Act 1986.
- 2-2 Where, in the course of the detailed implementation referred to in condition 2-1, the proponent seeks to change the designs, specifications, plans or other technical material submitted to the Environmental Protection Authority in any way that the Minister for the Environment determines, on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

3 Environmental Management Programme

- 3-1 The proponent shall protect the beneficial uses of the Swan River and the amenity of the public during clean-up operations on the site.
- 3-2 The proponent shall prepare a revised Environmental Management Programme to achieve the objectives of condition 3-1, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

This programme shall address, but not be limited to, the following:

Existing Cell

- 1 containment cell description, waste deposition, capping details and cadastral arrangements;
- 2 capping material selection and placement, and independent auditing of these activities;
- 3 procedures for assessment of contamination in the area of the cell;
- 4 preparation of an "as constructed" drawing showing changes, the locations and details of waste placed in the cell; and
- 5 registration of the final cell location on the land title with the Department of Land Administration;

Monitoring

- 6 dust management and monitoring procedures to include but not limited to:
 - minimisation of the handling and stockpiling of materials on site, to reduce the potential for dust generation;
 - coverage of soil and wastes where such materials are likely to remain exposed for periods greater than two days with hydromulch or similar compound or alternative dust suppression mechanisms;
 - maintenance of cover over existing stockpiled wastes;
 - prior approval be obtained for any proposal for such stockpiling; and
 - dust monitoring response action procedures;
- 7 periodical assessment of dust monitoring results by the Department of Environmental Protection;
- 8 noise and vibration management and monitoring as revised during the previous clean-up operations;

- 9 settlement, moisture content and erosion monitoring of the cell cover;
- 10 monitoring of the moisture content of the wastes in the cell;
- 11 groundwater monitoring, including locations and construction of monitoring wells, and sampling and analytical protocols;
- 12 inclusion of the parameter "cyanide" in the groundwater monitoring programme; and
- 13 procedures for evaluation and reporting monitoring results.

Response action plan

- 14 environmental monitoring response action plan, including:
 - (1) definition of action levels in relation to monitoring results;
 - (2) the specific actions, such as further investigations, cell cover repairs or groundwater recovery, required for each action level to the requirements of the Water and Rivers Commission; and
 - (3) reporting protocols.

Long term risk management

- 15 long term site risk management strategy containing, but not limited to:
 - (1) placement of memorials on title;
 - (2) protocol for site disturbance;
 - (3) contingency for cap restoration following disturbance;
 - (4) availability of EMP; and
 - (5) revision of EMP.

Off-site disposal

- 16 off-site transport management plan using the structure presented in the proponent's report on "Management of additional waste volumes, additional information" dated April 1997;
- 17 sampling, testing and material classification protocols for stockpiled wastes to be disposed off-site, in accordance with guidelines of the Waste Management Division of the Department of Environmental Protection; and

Reporting

- 18 protocols for reporting environmental management of the operations to the Department of Environmental Protection, including the results and evaluation of monitoring data.

Pollution

- 19 dust;
- 20 noise; and
- 21 vibration;

Transport

- 22 transport issues.

In the preparation of this programme, the proponent shall consult with the Water and Rivers Commission, the Swan River Trust and the Town of Mosman Park.

- 3-3 The proponent shall implement the revised Environmental Management Programme required by condition 3-2 to achieve the objectives of condition 3-1.

4 Contaminated Site Clearances

- 4-1 The proponent shall only proceed with post-clean-up activities of the site after having demonstrated that the site clean-up criteria identified in the Consultative Environmental Review, Section 2.2, have been met.

Note: The soil quality objectives are those in the Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites, January 1992.

- 4-2 The proponent shall collect, analyse and report on soil samples, after contaminated waste or soil is removed and prior to further development of an area.

5 Underground Containment Cell

- 5-1 Prior to any filling of the containment cell, the proponent shall ensure that an agreement, acceptable to the Minister for the Environment on advice of the Environmental Protection Authority, regarding the long-term management of the containment cell has been finalised with the Department of Land Administration. (See commitments 20 to 22).
- 5-2 The proponent shall design, construct and monitor the performance of the containment cell to ensure that there is no unacceptable release of contaminants, in the opinion of the Minister for the Environment on advice of the Environmental Protection Authority.
- 5-3 The proponent shall prepare the final design details of the containment cell in consultation with the Environmental Protection Authority, the Town of Mosman Park and the Water and Rivers Commission, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This design shall incorporate the principal findings of the Environmental Protection Authority Review Committee, as included in the design requirements in Attachment A.

- 5-4 The proponent shall construct the containment cell to achieve the objectives of condition 5-2.
- 5-5 The proponent shall prepare the final monitoring programme for the containment cell to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection, the Town of Mosman Park and the Water and Rivers Commission.

This programme shall address, but not be limited to the following:

- 1 Measurement of settlement and moisture content within the cap and the contaminated material, including a management plan to deal with any irregularities that may occur;
 - 2 Additional monitoring bores constructed to ensure that the groundwater downstream of the containment cell is adequately monitored for release of contaminants from the cell;
 - 3 Review of dust control measures, and submission of an improved programme to the requirements of the Department of Environmental Protection to ensure that site works are programmed wherever possible to minimize the generation of dust. This reviewed programme to address any special health issues; and
 - 4 Review of dust monitoring programme.
- 5-6 The proponent shall implement the monitoring programme required by condition 5-5 to achieve the objective of condition 5-2.

- 5-7 At the time of filling the containment cell, the proponent shall deposit all material in a manner that will reduce the incidence of specific material of high concentration of heavy metals or similar being localised within the cell.
- 5-8 Within three months of the commencement of filling of the containment cell, the proponent shall prepare a contingency plan to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, to address but not be limited to the following:
- 1 contamination of the groundwater; and
 - 2 management of any additional material found at the site which may involve off-site disposal of materials, such as concrete and rubble.
- 5-9 In the event that the monitoring programme required by condition 5-5 indicates that contamination of groundwater is occurring, the proponent shall immediately undertake appropriate measures, including those in the contingency plan referred to in condition 5-8, to address the environmental impacts, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

6 Proponent

These conditions legally apply to the nominated proponent.

- 6-1 No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

7 Time Limit on Approval

The environmental approval for the substantial commencement of the proposal is limited.

- 7-1 If the proponent has not substantially commenced the modified project within five years of the date of this statement, then the approval to implement the modified proposal shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced.

Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period to the Minister for the Environment.

Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years.

8 Compliance Auditing

To help determine environmental performance and compliance with the conditions, periodic reports on the implementation of the proposal are required.

- 8-1 The proponent shall submit periodic Performance and Compliance Reports, in accordance with an audit programme prepared by the Department of Environmental Protection in consultation with the proponent.

Procedure

- 1 Unless otherwise specified, the Department of Environmental Protection is responsible for assessing compliance with the conditions contained in this statement and for issuing formal clearance of conditions.
- 2 Where compliance with any condition is in dispute, the matter will be determined by the Minister for the Environment.
- 3 Within three months of the completion of filling of the containment cell, the Department of Land Administration, in association with the Town of Mosman Park, will prepare a management plan for the use of the land over the clay cap to ensure that land uses are compatible with the need to maintain the integrity of the clay cap.

Note

- 1 The Environmental Protection Authority reported on the proposal in Environmental Protection Authority Bulletins 699 (August 1993), 807 (February 1996) and 863 (July 1997).
- 2 Where required, the Department of Environmental Protection will address specific incidents regarding noise, dust or other pollution control issues under the provisions of Part V of the Environmental Protection Act.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

17 DEC 1997

***Proponent's Revised Environmental Management
Commitments***

December 1997

***CLEAN-UP OF CONTAMINATED SITE
McCABE STREET, MOSMAN PARK (817/993/1061)***

Landcorp and Octennial Holdings Pty Ltd

CLEAN-UP OF CONTAMINATED SITE, McCABE STREET, MOSMAN PARK (1061)

Clean-up Phase

- 1 Any activity pertaining to the clean-up undertaken on the McCabe Street site will comply with all legislative requirements.
- 2 The site clean-up will excavate and remove all pyrite cinders from the three dump areas (the western cinders dump, the pyrite slurry dump and the embankment cinders dump), the foundry waste dump, contaminated surface soils from the two areas around the former acid plants that have been identified as having high lead levels, and any discrete pockets of contaminated topsoils that occur elsewhere on the site.
- 3 During the placement of material into the containment cell, contaminated fill will be layered to maximise the retention of residual contaminants in accordance with best practice as indicated in column and leach testing.
- 4 The effectiveness of the site clean-up will be confirmed by chemical analyses, to the satisfaction of the Environmental Protection Authority.
- 5 The storage cell will be constructed to ensure waste is separated by a minimum of 5 m vertical distance from the groundwater table.
- 6 The storage cell will be constructed to the details described in the CER, or to a similar approved standard.
- 7 The site clean-up will be supervised by professionals in the environmental and engineering fields, to ensure the work is carried out to the standards required by the Environmental Protection Authority, the Health Department and the Department of Occupational Health, Safety and Welfare.
- 8 A separate Lot will be created to contain the waste storage cell. This Lot will remain as Crown land.
- 9 Drainage outfalls from the site to the Swan River will be sealed and/or otherwise treated in a manner that will avoid disturbance to the surrounding vegetation and soil. No other direct stormwater discharges to the Swan River will be constructed on the site.
- 10 Subdivision and sale of the land will not occur until the site clean-up is completed to the satisfaction of the Environmental Protection Authority, the Town of Mosman Park and all other relevant Government agencies.
- 11 Areas of the site to be sold as freehold residential lots will be covered with a minimum of 1 m of clean fill.
- 12 Special precautions will be taken to control dust generation and protect workers from dust inhalation during site clean-up.
- 13 No water used during the clean-up works will be sourced from groundwater beneath the site.
- 14 All clean-up work will be supervised by professionals in the engineering and environmental fields using recognised quality control and quality assurance procedures to ensure the work is carried out to the highest standard.
- 15 In the event that the remedial works need to disturb the existing cycleway/pedestrian path along the southern boundary to the site, an alternative thoroughfare will be provided and the path restored as soon as possible, to the satisfaction of the Town of Mosman Park.

- 16 Noise, dust and vibration from the site will be controlled to prevent unacceptable environmental impacts. In the event that the Environmental Protection Authority receives ongoing complaints relating to noise or dust emissions from the site, the Proponent will conduct surveys and assessments in consultation with the Environmental Protection Authority.
- 17 Upon completion of the remedial work programme, excavated areas will be sprayed with mulch and planted with grass to minimise any ongoing potential for dust emissions.
- 18 All areas of remedial works will be surrounded with appropriate fencing to exclude public access. Vehicle entry and exit points will have a gate that will be locked during non-working hours. Appropriate signs will be displayed along the perimeter fencing to inform the public of the nature and purpose of the remedial works, and to prohibit public access to the site.

Long Term Containment

The following commitments in respect of the long-term containment of wastes at the McCabe Street site will be incorporated in the legal agreement on long-term management required by condition 5-1:

- 19 Conduct ongoing monitoring of groundwater quality and the storage cell capping system and if necessary, based on the results, implement actions necessary to prevent unacceptable environmental impacts.
- 20 Ensure all maintenance works necessary to ensure the ongoing integrity of the storage cell capping system are identified promptly by regular monitoring and carried out in a thorough and professional manner as quickly as is practicable.
- 21 Maintain a Crown Reserve over the waste storage cell and ensure adequate notification is given to all interested parties concerning the function and status of the Reserve.

The proponent makes the following commitment in respect of the long term containment of wastes of the McCabe Street site:

- 22 Ensure that the surface of the Crown Reserve is properly maintained to a standard in keeping with the function of the land as part of the public recreational resource of the area to the satisfaction of the Town of Mosman Park, the Ministry for Planning and any other relevant Government agency.

ATTACHMENT A

**CLEAN-UP OF CONTAMINATED SITE, McCABE STREET
MOSMAN PARK (817/993/1061)**

LANDCORP AND OCTENNIAL HOLDINGS PTY LTD

Design Requirements for the Expanded Containment Cell

- 1 *Selection of the materials for the construction of the cap and cover of soil shall ensure that the moisture content within the clay is maintained at a level to avoid cracking and to minimize the quantities of water entering the contaminated materials.*
- 2 *In the event of excess space being available within the containment cell, the upper surface of the clay layer must lie at a depth of at least 0.65 metres below the finished surface and at most 2.00 metres below the finished surface. Notwithstanding this, every effort should be made to increase the depth of the soil cover so as to minimize ongoing management needs.*
- 3 *The design of the cell and its cap should incorporate mechanisms to manage the drainage and prevent erosion in the long term.*
- 4 *The capping over the proposed extension and the approved cell should be continuous.*
- 5 *The proponent should provide to the Department of Environmental Protection (and to the Town of Mosman Park and the Department of Land Administration) an "as constructed" drawing of the containment cell, showing the location and details of all material placed in the cell.*